

KONSTANTINOV, G.N.; KONSTANTINOVA, L.S.; FILATOV, V.A.

Determining the zero point of the level of magnetic anomalies.

Geol.i geofiz. no.5:91-92 '61.

(MIRA 14:6)

1. Sibirskiy nauchno-issledovatel'skiy institut geologii, geofiziki
i mineral'nogo syr'ya; Novosibirsk.

(Magnetic anomalies)

KONSTANTINOV, G.N.; FILATOV, V.A.

Estimating the prospects for magnetic anomalies. Geol. i geofiz.
no.6:116-119 '63. (MIRA 19:1)

1. Sibirskiy nauchno-issledovatel'skiy institut geologii, geofiziki
i mineral'nogo syr'ya, Novosibirsk. Submitted June 16, 1962.

KONSTANTINOV, G.N.; KONSTANTINOVA, L.S.

Interpretation of magnetic anomalies by the curves of a horizontal
gradient of Z function. Trudy SNIIGGIMS no.27:138-144, '62.
(MIRA 16:9)

1. Sibirskiy nauchno-issledovatel'skiy institut geologii, geofizi-
ki i mineral'nogo syr'ya.
(Magnetic prospecting)

KONSTANTINOV, G.N.; KONSTANTINOVA, L.S.

Calculation of pseudogravitational anomalies and the determination of the angle of slope in magnetization vector. Trudy SNIIGGIMS no. 27:165-170 '62.
(MIRA 16:9)

1. Sibirskiy nauchno-issledovatel'skiy institut geologii, geofiziki i mineral'nogo syr'ya.
(Magnetic anomalies)

BUCHATSKIY, Ye.G.; YENIKHEYEV, R.N.; BEZRUKOV, V.M.; KONSTANTINOV, G.V.;
SHEVYREV, S.A.; MEDVEDEV, I.I.

Calculated seismicity of single-story framed industrial buildings.
Prom. stroi. 41 no.6:35-37 Je '64. (MIRA 17:9)

SOV/85-58-9-10/33

AUTHORS: Konstantinov, I., Chairman, Krayevoy komitet DOSAAF (DOSAAF Kray Committee) and Maslennikov, V., Secretary, Kraykom VLKSM (VLKSM Kray Committee) (Krasnoyarsk)

TITLE: Cooperation (Sodruzhestvo)

PERIODICAL: Kryl'ya rodiny, 1958, Nr 9, pp 6-7 (USSR)

ABSTRACT: The authors tell of the cooperative effort made by the DOSAAF and VLKSM organizations in Krasnoyarskiy kray toward the promotion of aviation sports and model-aircraft building. The result was a rapid increase in aviation sports activities throughout the vast areas of Krasnoyarskiy kray. There are 2 photographs.

ASSOCIATION: Krayevoy komitet DOSAAF (DOSAAF Kray Committee) and Kraykom VLKSM (VLKSM Kray Committee), Krasnoyarsk.

Card 1/1

APPROVED FOR RELEASE: 06/19/2000
KONSTANTINOV, I.

CIA-RDP86-00513R000824410009

The city of Gorna Oryakhovitsa. p. 1.
(Geografiia, Vol. 7, no. 4, 1957. Sofia, Bulgaria)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, no. 10, October 1957, Uncl.

KONSTANTINOV, Iliya
~~SURNAME~~ (in caps); Given Names

Country: Bulgaria

Academic Degrees: not indicated

Affiliation: not indicated

Source: Sofia, Geografiya, No 1, 1961, pp 8-9

Data: "State Sugar Plants in Gorna Oryakhovitsa."

VAKARCHUK, A.; KONSTANTINOV, I.; TROFIMOVA, L., red.

[Rural builders of the Altai contemplate new frontiers; work practices of the "Altai Territory Construction Administration"] Sel'skie stroiteli Altaia namechaut novye rubezhi; opyt upravleniia "Altai-stroitel'stvo." Moskva, Trest "Orgsovkhozstroim," 1963. 13 p.
(MIRA 17:8)

1. Russia (1917- R.S.F.S.R.) Ministerstvo stroitel'stva. Glavnoye upravleniye po delam sel'skogo i kolkhoznogo stroitel'stva. 2. Glavnyy inzhener upravleniya "Altai-stroitel'stvo" (for Vakarchuk). 3. Nachal'nik otdela tresta "Orgsovkhozstroy" (for Konstantinov).

KONSTANTINOV I

Underwater explosions. IUn.tekh. no.8:26-27 Ag '57. (MLRA 10:8)
(Electric discharges)

KONSTANTINOV, I.

"Anomalous" dispersion. IUn. tekhn. 2 no.7:48 J1 '58. (MIRA 11:10)
(Dispersion)

KONSTANTINOV, I.

Colored shadows. IUn.tekh. 3 no.2:49 F '59. (MIRA 12:1)
(Shades and shadows)

KONSTANTINOV, I.

Stereoscopic illustrations. *Un.tekh.* 4 no.6:74-75 Je '60.
(MIRA 13:9)

(Stereoscope)

KONSTANTINOV, I.

Talking about elevators. IUn.tekh. 5 no.9:45-48 S '60.
(MIRA 13:10)
(Elevators, Automatic)

FILIPPOV, N.A.; KONSTANTINOV, I.A.

[Examples of the calculation and design of wooden
elements; a practical manual for designers] Primery
rascheta i proektirovaniia dereviannykh konstruktsii;
prakticheskoe posobie dlia proektirovshchikov. Le-
ningrad, Stroiizdat, 1965. 300 p. (MIRA 18:12)

STAROSTIN, S.M.; KONSTANTINOV, I.A.

Study of stresses in the Bratsk dam taking into consideration
preliminary deformations produced during its construction.
Nauch.-tekhn.inform.biul. LPI no. 1/2:26-34 '58. (MIRA 12:6)
(Bratsk Hydroelectric Power Station--Dams)
(Strains and stresses)

STAROSTIN, S.M.; KONSTANTINOV, I.A.

Static calculations for the Bratsk Dam with the built-in hydroelectric power station. Trudy LPI no.208:223-239 '60.

(MIRA 13:9)

(Bratsk Hydroelectric Power Station--Dams)

KONSTANTINOV, I. A.

33323. Sad Vysokikh Urozhayev (Kolkhoz "Moldova Sochiialiste". Slobod,eyskiy Rayon). Vinodeliye i Vinnogradarstvo Moldavii, 1949, No. 5, C. 35-38

SO: Letopis' Zhurnal'nykh Statey Vol. 45, Moskva, 1949

KONSTANTINOV, I.A.; KONSTANTINOV, V.I.; FILIPPOV, N.A., inzh.,
nauchn. red.; VORONETSKAYA, L.V., red.izd-va;
CHERKASSKAYA, F.T., tekhn. red.

[Practical methods and examples of designing railroad
structures] Prakticheskie metody i primery rascheta zhe-
lezobetonnykh konstruktsii. Leningrad, Gosstroizdat,
1963. 340 p. (MIRA 17:2)

11-

KONSTANTINOV

Wire Rod Mill Proposed for the U.S.S.R. I. G. Konstantinov.
 (Iron Age, 1934, vol. 133, Apr. 19, pp. 12-13, 74). Particulars
 are given of the considerations which have led to the adoption
 of a standard wire rod mill for new plants in the Soviet Union.
 The mill adopted is of the semi-continuous type and is designed
 to carry four strands simultaneously.

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

1934 1935 1936 1937 1938 1939 1940 1941 1942 1943 1944 1945 1946 1947 1948 1949 1950 1951 1952 1953 1954 1955 1956 1957 1958 1959 1960 1961 1962 1963 1964 1965 1966 1967 1968 1969 1970 1971 1972 1973 1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000

1ST AND 2ND COVER		PROCESS AND PROPERTY INDEX		3RD AND 4TH COVER	
<div style="display: flex; justify-content: space-between;"> KONSTANTINOV 12 </div>					
<p>Work of Deformation of a Metal During Rolling. I. Konstantinov. (Stal, 1937, No. 7, pp. 30-45). (In Russian). The author examines at some length the problem of the work done during the rolling of a metal and develops formulae for the calculation of this work. These formulae are based on the assumption that the simplest method of determining the work done is to take into account the turning moment of the rolls about an instantaneous centre of gyration of the roll, which centre coincides with the starting-point of the arc of contact between the metal and the surface of the roll on the input side, taken at the point of intersection between the surface of the roll and the line of centres. By this means it is possible to obtain a comparatively simple formula for the calculation of the work used up in deforming the metal during rolling. This formula takes into account the irregular distribution of the pressure of the metal on the roll, the flow of metal in advance of the roll during rolling and the work expended in friction between the metal and the roll. This formula can therefore be used, provided the turning moment of the motor driving the roll is known, as a means of calculating the pressure of the metal on the rolls and of the latter on the bearings and supports.</p>					
<div style="display: flex; justify-content: space-between;"> ASB-11A METALLURGICAL LITERATURE CLASSIFICATION 6-27-1937 </div>					
144085 2A		144085 2A		144085 2A	
144085 2A		144085 2A		144085 2A	

KONSTANTINOV, I.G.

On free-flow gate systems. Lit.proizv.no.9:28-29 D'54.
(Founding) (MLRA 8:2)

PHASE I BOOK EXPLOITATION

SOV/5491

Yedneral, Petr Prokof'yevich, and Ivan Georgiyevich Konstantinov

Teoriya plasticheskoy deformatsii i obrabotka metallov davleniyem (Theory of Plastic Deformation and Pressworking of Metals) Moscow, Mashgiz, 1960.
341 p. 13,000 copies printed.

Reviewer: A.I. Serovatin, Engineer; Ed.: G.A. Vinogradov, Candidate of Technical Sciences; Ed.: Yu. P. Pilipenko, Engineer; Tech. Ed.: M.S. Gornostaypol'skaya; Chief Ed. (Southern Dept. Mashgiz): V.K. Serdyuk, Engineer.

PURPOSE: This book is intended for use as a textbook in machine-building tekhnika.

COVERAGE: The book, written to conform to the requirements of the program "The Theory of Plastic Deformation and Pressworking of Metals", discusses the theory of plastic deformation of metals, theoretical fundamentals of rolling and of other methods of metal forming, the rolling process and roll-pass design, extrusion drawing, open-die forging, die forging, and stamping. No personalities are mentioned. There are 58 references: 57 Soviet and 1 English.

Card 1/10

SHAL'NEV, Viktor Grigor'yevich; KONSTANTINOV, I.G., kand. tekhn. nauk,
red.; FILIPENKO, Yu.P., inzh., red.; GORNOSTAYPOL'SKAYA, M.S.,
tekhn. red.

[Progress in forging and sheet-metal working methods] Razvitie
metodov obrabotki metallov davleniem. Moskva, Mashgiz, 1962.
618 p. (MIRA 15:10)

(Forging) (Sheet-metal work)

KONSTANTINOV, I.O.

Planetary method of reclaiming waste sand. Lit. proizv. no.3:
2-5. Mr 164. (MIRA 18:9)

Konstantinov, I.I.

AUTHORS: Ivantsov, L.M., Konstantinov, I.I., Sukhovalova, V.V., 32-11-24/60
Shurygin, A.I.

TITLE: Testing of the Spectral System "ФНАН" for the Determination of Phosphorus in Steel (Ispytaniya spektral'noy ustanovki "ФНАН" dlya opredeleniya fosfora v stali)

PERIODICAL: Zavodskaya Laboratoriya, 1957, Vol. 23, Nr 11, pp. 1329-1332 (USSR)

ABSTRACT: In the Physical Institute AN USSR the second model of the experimental photoelectric plant for accelerated determination in steel during melting was tested. This work was carried out under operational conditions in the "Asovstal'" works together with the institute mentioned in the time between 1954 and 1956. The phosphorus content determined usually amounted to 0.01-0.8%; samples were taken from a melt mass of 350 t; every day up to 300 experiments were carried out. During experimental work about 15,000 spectral determinations of phosphorus were carried out and a total of about 1000 melting processes subjected to spectral-chemical supervision. According to the new scheme the spectral plants consist of the following parts: Autocollimation mirror monochromator with constant deflection, double light transmission through a dispersion prism of transparent quartz, controlled revolution which makes it possible, together with the flat mirror, to lead the spectral lines

Card 1/2

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TESTING of the Spectral System "ФНАН" for the Determination of Phosphorus in Steel 32-11-24/60

to the output gap of the monochromator, in which case, because of the accurate adjustment of the output gap, a micrometric shifting of this gap is required. Operation of the device is automatized. The angular dispersion of the plants permits the faultless separation of the line P 2136.2 Å. Further data are: practical spectral height 10 mm, inner diameter of the input gap 0.02 mm, inner diameter of the output gap 0.027 mm. The process of spectral analysis is described. The analysis takes about 4 minutes, doubled: 5 minutes. In order to increase the reliability of operation a double system is recommended. There are 5 figures and 1 table.

ASSOCIATION: Physical Institute imeni P.N.Lebedev AN USSR and "Asovstal'" Works (Fizicheskiy institut im. P.N.Lebedev Akademii Nauk SSSR i zavod "Asovstal'")

AVAILABLE: Library of Congress

Card 2/2

II. KONSTANTINOV

TRANS I BOOK REFLECTIONS 30W/1700

Уов. Университет

Materialy I Vsesoyuznogo soveshchaniya po spektroskopii, 1966.
T. III. Atomnaya spektroskopiya. (Materials of the 10th All-Union Conference on Spectroscopy, 1966. Vol. 3: Atomic spectroscopy) / Izdat. L'vovskogo univ., 1968. 568 p. (Series: Its: Prikladnyy sbornik. v.7). 3,000 copies printed.

Additional Sponsoring Agency: Akademiya nauk SSSR.
spektroniologii.

Editorial Board: S.S. Landsberg, Leningrad Univ. (Resp. Ed.);
S.B. Abramson, Doctor of Physical and Mathematical Sciences;
I.M. Pribludnyy, Doctor of Physical and Mathematical Sciences;
V.A. Pavlyutskiy, Doctor of Physical and Mathematical Sciences;
V.G. Krut'ko, Candidate of Technical Sciences; S.M. Mayatskiy,
Candidate of Physical and Technical Sciences; L.K. Kilevskiy,
Candidate of Physical and Mathematical Sciences; V.S. Milyunovskiy
(Moscow), Doctor of Physical and Mathematical Sciences; A.Ye.
Glukharskiy, Doctor of Physical and Mathematical Sciences;
M.M. A.L. Gerasimov, Tech. Sci. T.V. Saranyuk.

Function: This book is intended for scientists and researchers in the field of spectroscopy, as well as for technical personnel using spectrum analysis in various industries.

CONTENTS: This volume contains 177 scientific and technical studies of atomic spectroscopy presented at the 10th All-Union Conference on Spectroscopy in 1956. The studies were carried out by members of scientific and technical institutes and industry, extensive bibliographies of Soviet and other sources of rare earths studies covering many phases of spectroscopy, methods for controlling electromagnetic radiation, phototechnology of gas discharge, optical spectroscopy, thermal dispersion in metal vapors, optical spectroscopy and combustion theory, spectrum analysis of ores and minerals, photographic methods for quantitative spectrum analysis of metals and alloys, spectral determination of the hydrogen content of metals by means of isotopes, tables, and atlases of spectral lines, spark spectrographic analysis, statistical study of variation in the parameters of calibration curves, determination of traces of metals, spectrum analysis in metallurgy, thermochemistry in metallurgy, and principles and practice of spectrochemical analysis.

Card 2/31

(1.3400) EQUATION NOTING THE WAY FOR TO ESTABLISH

Tomoh'way, O.O. Study of Minerals by Means of Spectrum Analysis 378

Sverdlov, S.M., and L.O. Fedorova. Analysis of Minerals. New Method for the Spectrum 381.

Salardin, V.N., and S.L. Mandel'shtam. Possibility of the
Analysis of a Metal in an Electric Arc Furnace Without
Sampling

Kventsov, L.N. I.I. Konstantinov, V.V. Sukhovalova, and A.I. Shurygin. Industrial Tests of an Experimental Photoelectric Unit for Rapid Determination of Phosphorus in Steel 388

Popelov, L.I. Methods of Calculating Calibration Curves for the Determination of High Concentrations of Components in Ferroalloys 392

**Boronov, B.G. Spectral Studies of the Metals and Physics
Laboratory of the Stalingrad Branch of the Giprofteemash
Institute**

22A1

SOV/81-59-19-67767

Translation from: Referativnyy zhurnal. Khimiya, 1959, Nr 19, p 132 (USSR)

AUTHORS: Ivantsov, L.M., Konstantinov, I.I., Sukhovalova, V.V., Shurygin, A.I.

TITLE: Industrial Tests of an Experimental Spectral Photoelectric Installation for the Quick Determination of Phosphorus in Steel (A Short Exposition of the Paper)

PERIODICAL: Fiz. sb. L'vovsk. un-t, 1958, Nr 4(9), pp 388 - 392

ABSTRACT: The analyzed samples contained 0.01 - 0.8% P. A two-prism quartz auto-collimation mirror monochromator of constant deflection separates the line P 2136.2 A, the intensity of which is automatically compared with the undecomposed light source. The conducted analysis is not inferior to the chemical marking analysis as far as accuracy is concerned. The time needed for analysis is 3.5 - 5 minutes.

L. Gribov

✓

Union Metallurgical Plant "Azovstal"
in S. Indzharskiy

Card 1/1

U 50543-65 EWT(1)/EPA(s)-2/EWT(m)/EPF(c)/EWP(j)/T/EWA(h) Pz-6/Pc-4/Pr-4/
 Pt-3/Ppb IUP(c) AT/RM 0835/0842

AUTHOR: Popov, Yu. A.; Davydov, B. E.; Kubasova, N. A.; Krentsel', B. A.;
Konstantinov, I. I.

TITLE: Synthesis and properties of polymeric Schiff bases

1984, Высokomolekulyarnyye soyedineniya, v. 7, no. 5, 1984, 835-842

TOPIC TAGS: organic semiconductor, semiconducting polymer, polymeric Schiff base,
properties

ABSTRACT: Ten new polymeric Schiff bases have been synthesized and their chemical structure, morphology, and principal properties have been studied (see Table 1 of the literature). The synthesis involved the polycondensation of p-phenylenediamine or 2,6-diaminopyridine with various dicarboxylic compounds in glacial acetic acid under mild conditions which substantially prevented side reactions. The polymers were yellow to black materials, in some cases infusible up to 400C, showing high-semiconductor properties. For the polymeric Schiff bases which are continuous conjugated, the activation energy for conduction was 1.7-2.1 ev, and for those in which conjugation was disrupted by hetero atoms and -NH- groups, this energy was 2.1-3.5 ev. Pyrolysis of the polymers at 150-200C under vacuum was

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ACCESSION NR: AP5013057

... and hypotheses as to the chemical reactions causing changes in electrical
... in the source were advanced. In the ... range, these
... molecular rearrangement ... dimensional ...
... showed ... A substantial effect of ... in elect-
... was demonstrated, usually consisting in a ... al con-
... in activation energy. (Orig. art. has ... figures, 2 tables,
[SM]

ORIGINATOR Institut neftekhimicheskogo sinteza AN SSSR (Institute of Petro-
chemical Synthesis, AN SSSR)

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ENCL: 02

SUB CODE: 00,GC

REF ID: 007

OTHER: 003

ATD PRESS: 4007

Card 2/4

L 50548-65

ACCESSION NR: AP5013057

ENCLOSURE: 01 0

Table 1. Some properties of polymeric Schiff bases

Formula	Color	Yield, %	Mol. wt. by viscosity method	Mol. wt. by elemental analysis	Crystall- izing	IR, cm^{-1}	EPR sig- nal, spin/g
I $\text{O}=\text{CH}-\text{CH}=\text{N}-\text{C}_6\text{H}_4-\text{N}=\text{CH}-\text{CHO}$	dark brown	33.00	1	820	-	amorphous	$2.0 \cdot 10^{-4}$ $3 \cdot 10^3$
II $\text{O}=\text{CH}-\text{CH}=\text{N}-\text{C}_6\text{H}_3-\text{N}=\text{CH}-\text{CHO}$	same	32.00	1	440	820	same	$2.1 \cdot 10^{-4}$ $1.8 \cdot 10^3$
III $\text{O}=\text{C}(\text{CH}_2\text{C}_6\text{H}_5)-\text{CH}=\text{N}-\text{C}_6\text{H}_4-\text{N}=\text{C}(\text{CH}_2\text{C}_6\text{H}_5)-\text{CHO}$	" "	37.00	6	920	1020	" "	$2.0 \cdot 10^{-4}$ $1.0 \cdot 10^3$
IV $\text{O}=\text{C}(\text{CH}_2\text{C}_6\text{H}_5)-\text{CH}=\text{N}-\text{C}_6\text{H}_3-\text{N}=\text{C}(\text{CH}_2\text{C}_6\text{H}_5)-\text{CHO}$	grey	35.00	5	920	1110	" "	$2.5 \cdot 10^{-4}$ $1.7 \cdot 10^3$
V $\text{O}=\text{C}(\text{C}_6\text{H}_5)_2-\text{CH}=\text{N}-\text{C}_6\text{H}_4-\text{N}=\text{CH}-\text{CHO}$	yellow	32.50	1	1025	1100	crystalline m.p. 112-113°C	$1.5 \cdot 10^{-4}$ $1.5 \cdot 10^3$
VI $\text{O}=\text{C}(\text{C}_6\text{H}_5)_2-\text{CH}=\text{N}-\text{C}_6\text{H}_3-\text{N}=\text{CH}-\text{CHO}$	same	33.50	1	820	820	crystalline	$2.0 \cdot 10^{-4}$ $1.3 \cdot 10^3$
VII $\text{O}=\text{CH}-\text{CH}=\text{CH}-\text{CH}=\text{N}-\text{C}_6\text{H}_4-\text{N}=\text{CH}-\text{CH}=\text{CH}-\text{CHO}$	dark brown	38.50	1	620	-	amorphous	$1.7 \cdot 10^{-4}$ $1.3 \cdot 10^3$

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L 50548-65

ACCESSION NR: AP5013057

ENCLOSURE: 02

Table 1. Some properties of polymeric Schiff bases (Cont.)

Formula	Color	Yield, %	Degree of polymerization	St. from condensation and group calculation	St. by elemental analysis	Crystallizing	Mp, °C	EPR signal, spin/g
VIII 	black	22.00	6	1050	1035	amorphous	1.7	1.5 · 10 ⁻¹¹
IX 	yellow	45.60	3	630	—	crystalline	1.7	1.4 · 10 ⁻¹⁰
X 	same	35.50	3	550	—	amorphous	1.1	1.2 · 10 ⁻¹¹
XI 	violet	22.40	1	1200	1160	crystalline	1.5	1.3 · 10 ⁻¹¹
—	—	—	—	—	—	180—185°C	—	—
—	grey	19.20	2	650	770	amorphous, m.p.	1.6	1.5 · 10 ⁻¹¹
—	—	—	—	—	—	115—117°C	—	—
—	brown	20.20	11	1150	1750	amorphous	1.7	1.5 · 10 ⁻¹¹

Card 4/4

AMERIK, Yu.B.; KRENTSEL', B.A.; KONSTANTINOV, I.I.

Polymerization of vinyl oleate in the liquid crystal state.
Dokl. AN SSSR 165 no.5:1097-1100 D '65.

(MIRA 19:1)

1. Institut neftekhimicheskogo sinteza im. A.V.Topchiyeva
AN SSSR. Submitted May 3, 1965.

KONSTANTINOV, I.N.

Procurement and processing of silk cocoons. Tekst.prom. 15
no.2:13-14 P '55. (MLRA 8:3)
(Silk manufacture)

KONSTANTINOV, I.O.

Diurnal intensity variations of cosmic rays in
Tikhaya Bay. Probl.Arkt.i Antarkt. no.1:41-48
'59. (MIRA 13:7)
(Cosmic rays)

This publication is intended for geographers, oceanographers, and readers interested in the study of the Arctic and Antarctic regions. This collection of 17 articles published by the Arctic and Antarctic Sci. Res. Inst. deals with the following conditions in the Arctic Seas, Atmospheric circulation and turbulence, the problem of albedo on drifting ice, the intensity of cosmic rays, and the use of aerial photography in ice reconnaissance. Tables of instrumental corrections for reading deep-sea reversing thermometers are included.

S/089/62/013/001/004/012
B102/B104

AUTHORS: Blinov, V. A., Konstantinov, I. O., Litvin, V. F.,
Nemilov, Yu. A.

TITLE: A polygonal magnetic multispectrograph-analyzer

PERIODICAL: Atomnaya energiya, v. 11, no. 1, 1962, 59-60

TEXT: Details are given of a particle distribution analyzer similar to those already described by S. Hinds and B. Middleton (Proc. Intern. Conf. Nucl. Structure, Kingston, Canada, 1960). It is designed as a multi-spectrograph with a Van-de-Graaff accelerator; the gap field, produced by permanent magnets can be varied within a range of $7 \cdot 10^5$ oe. The gap width is 1 cm. Nine sections with diaphragms correspond to nine angle intervals between 5 and 95° , each diaphragm serving to separate a solid angle of $\approx 3 \cdot 10^{-4}$ steradian into its "own" spectrograph. The charged particles coming from the target, which is placed in the uniform part of the magnetic field, pass through the corresponding diaphragm and are focused onto the nuclear emulsion plates arranged along the focal curve. By contrast with the analyzers described by Hinds-Middleton it is possible with this

Card 1/2

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S/089/62/013/001/004/012
B102/B104

A polygonal magnetic...

analyzer to raise the upper limit of particle energy by several times on account of the aperture ratio, without having to change the magnetic field strength in the gap. As an example, the energy spectrum of 2.55-Mev protons elastically scattered through 90° by a gold target (ninth section of the analyzer) is given. The energy resolution was 300. There are 2 figures.

SUBMITTED: January 26, 1962

Card 2/2

BLINOV, V.A.; KONSTANTINOV, I.O.; LITVIN, V.F.; NEMILOV, Yu.A.

Multiangular magnetic analyzer-multispectrograph. Atom. energ.
13 no.1:59-60 J1 '62. (MIRA 15:7)
(Nuclear instruments)

45365

S/056/63/044/001/025/067
B104/B144

24.6500

AUTHORS: Babenko, N. P., Bibichev, B. A., Konstantinov, I. O.,
Nemilov, Yu. A.

TITLE: Neutron polarization in the $C^{12}(d,n)N^{13}$ reaction

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 44,
no. 1, 1963, 135-136

TEXT: The polarization of neutrons from the reaction $C^{12}(d,n)N^{13}$ corresponding to the formation of an N^{13} nucleus in the ground state was measured for a deuteron energy of 6.5 Mev. The neutrons were selected by a conical paraffin collimator at an angle of 40° with the deuteron beam direction. A helium high-pressure scintillation counter was used as analyzer. The chamber of this counter was 4 cm in diameter and 7 cm high, the pressure (He + 7% Xe) was 70 atm. The neutrons scattered by helium under an angle of 123° were recorded by stilbene crystals. The thickness of the Aquadag target corresponded to a loss in deuteron energy of 600 kev, the current to the target was 5 μ a. Using a

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Neutron polarization in the ...

S/056/63/044/001/025/067
B104/8144

polarization value of $P_{He4} = 0.94$ for 5.7 Mev neutrons scattered on helium through 123° (B.L.Walter et al., Nucl. Phys., 30, 292, 1962), a value of $P(40^\circ) = (-25.0 \pm 3.0)\%$ was obtained for neutron polarization from the $C^{12}(d,n)N^{13}$ reaction ($E_d = (6.2 \pm 0.3)$ Mev). This value agrees with that obtained in the polarization theory for stripping reactions for this energy range. There are 2 figures.

SUBMITTED: August 10, 1962

Card 2/2

BABENKO, N.P.; KONSTANTINOV, I.O.; NEMILOV, Yu.A.

Angular distribution of the polarization of neutrons from the
 $C^{12}(d, n)N^{13}$ reaction. Zhur. eksp. i teor. fiz. 45 no.5:1389-
1392 N '63. (MIRA 17:1)

1. Radiyevyy institut AN SSSR.

ACCESSION NR: AP4033101

S/0120/64/000/002/0029/0035

AUTHOR: Babenko, N. P.; Konstantinov, I. O.

TITLE: Neutron polarimeter

SOURCE: Pribery* i tekhnika eksperimenta, ⁹no. 2, 1964, 29-35

TOPIC TAGS: polarimeter, neutron polarimeter, fast neutron polarimeter, cyclotron

ABSTRACT: A new polarimeter is used in conjunction with a cyclotron which produces a 6.6-Mev deuteron beam with an average current of 3 microamp. The cyclotron deuterons are focused by quadrupole lenses on a target, cause a reaction there, and proceed further into a Faraday's cylinder. The neutrons are taken off at an angle θ , by a shielded conical collimator (see Enclosure 1) with a 3° angular aperture. A high-pressure gas scintillation counter (design drawing and principal data supplied) is placed at 65 cm from the target; the shield

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ACCESSION NR: AP4033101

consists of 35 cm paraffin and 10 cm lead. The gas counter serves simultaneously as an analyzer and as a monitor of fast neutrons. Although the polarimeter can be adjusted for a resolution time of 1 nsec, the size of the gas analyzer and neutron detectors, as well as stability interests, makes a resolution time of 5 nsec expedient. Calibrating and aligning procedures of the polarimeter are also described. "The authors consider it their pleasant duty to thank Yu. A. Nemilov for his fruitful help in carrying out this project." Orig. art. has: 8 figures and 1 formula.

ASSOCIATION: none /

SUBMITTED: 29May63

DATE ACQ: 11May64

ENCL: 01

SUB CODE: NS

NO REF SOV: 004

OTHER: 024

Card 2/32

ACCESSION NR: AP4033141

S/0120/64/000/002/0164/0166

AUTHOR: Babenko, N. P.; Konstantinov, I. O.; Nemilov, Yu. A.

TITLE: High-pressure gas scintillation counter

SOURCE: Priory* i tekhnika eksperimenta⁹ no. 2, 1964, 164-166

TOPIC TAGS: counter, scintillation counter, gas scintillation counter, high pressure gas scintillation counter, fast neutron polarization, neutron polarimeter

ABSTRACT: A new-design high-pressure gas scintillation counter intended to measure fast-neutron polarization is described. Design sketches of the counter and of the exhaust and filling valves are presented. A stainless-steel chamber with an internal volume of 70 cm³ is filled at 100 atm with a mixture of 5-7% Xe and 93-95% He⁴. All gaskets are made of teflon. An alpha-source (Po) introduced into the counter serves to measure its time and amplitude characteristics; the halfwidth of the Po line is under 6%. The resolution time of the counter

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ACCESSION NR: AP4033141

is not longer than that of stilbene. The counter has been used both as an analyzer and as a monitor in a neutron polarimeter. Orig. art. has: 4 figures.

ASSOCIATION: none

SUBMITTED: 15May63

ATD PRESS: 3066

ENCL: 00

SUB CODE: OP, NP

NO REF SOV: 001

OTHER: 004

Card 2/2

POSTCARD

ACCESSION NR: AP4043656

S/0056/64/047/002/0767/0768

AUTHORS: Babenko, N. P.; Konstantinov, I. O.; Moskalev, A. P.;
Nemilov, Yu. A.

TITLE: Neutron polarization in the reaction $D(d, n)He^3$

SOURCE: Zh. eksper. i teor. fiz., v. 47, no. 2, 1964, 767-768

TOPIC TAGS: neutron polarization, deuteron scattering, deuteron
cross section, deuterium, helium

ABSTRACT: The authors used a previously published (ZhETF v. 45, 1389, 1963) and somewhat improved procedure to measure the polarization of neutrons from the reaction $D(d, n)He^3$ at incident deuteron energies 4.7 and 5.6 MeV, for a reaction angle of 45° in the center-of-mass system. The measurements were made with the extracted beam of the Radium Institute cyclotron at a deuteron energy 6.6 ± 0.1 MeV. The target was gaseous deuterium at a pressure of 4.5 atm in a volume

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51"

ACCESSION NR: AP4043656

bounded by two tantalum foils. The neutrons from the reaction were analyzed with a gas-filled scintillation counter at 135°. As shown in Fig. 1 of the enclosure the dependence of the neutron polarization on the incident-deuteron energy, as obtained by various investigators, tends to cluster about two experimental curves. The present results follow the upper curve of the figure. "The authors thank M. B. Miller for help with the measurements." Orig. art. has: 1 figure.

ASSOCIATION: None

SUBMITTED: 14Feb64

ENCL: 01

SUB CODE: NP

NR REF SOV: 004

OTHER: 006

Cord 2/3

ACCESSION NR: AP4043656

POSTCARD

ENCLOSURE, 01

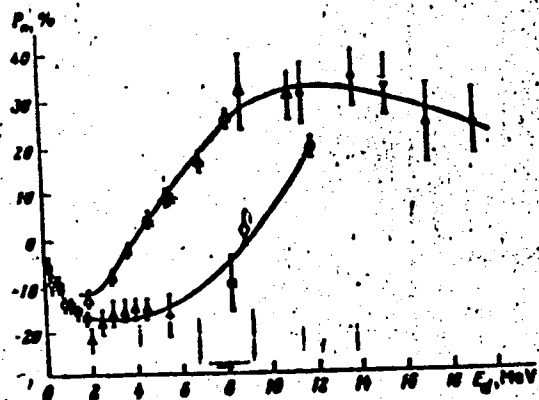


Fig. 1. Dependence of polarization of the neutrons from the reaction $D(d, n)He^3$ on the incident-deuteron energy according to various sources.

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BABENKO, N.P.; BIBICHEV, B.A.; KONSTANTINOV, I.O.; MOSKALEV, A.P.; NEMILOV, Yu.A.

Neutron polarization in (d, n) type stripping reactions with $l_p = 1$.
IAd. fiz. 1 no.3:452-455 Mr '65. (MIRA' 18:5)

KONSTANTINOV, I. P.

"Work of the Factory for Milling Machines, Daitrovsk."

Programmed Control of Metal Cutting Machines. report presented at
All-Union Conference, Moscow, 13-16 Nov 1957

Vestnik Ak. Nauk SSSR, 1958, No. 2, pp. 113-115, (author Kobrinskiy, A. Ye.)

Card 1/1

USSR/Cultivated Plants. Grains.

M

Abs Jour : Ref Zhur-Biol., No 15, 1958, 68DD2

Author : Konstantinov, I. S.

Inst : ~~AS USSR Moldavian Branch.~~

Title : The Effect of Mineral Fertilizers on
Winter Barley Yields on Eroded Soils.

Orig Pub : Izv. Mold. fil. AN SSSR, 1957, No 9 (42),
119-126

Abstract : An investigation was made of the effective-
ness of superphosphate and full mineral fer-
tilization (30 and 60 kg/hectare) on winter
barley yields on eroded and uneroded soils
of Moldavia. The plants on eroded soils re-
sponded better to fertilization. In the
N₃₀P₃₀K₃₀ variant, each additional kilogram

Card : 1/2

KONSTANTINOV, I.Ye.

Luminescent counter for investigating gamma ray spectra. Sbor.nauch.
rab.MIFI no.9:64-67 '55. (MIRA 10:1)
(Nuclear counters) (Gamma rays)

KONSTANTINOV, I. M.

KONSTANTINOV, I. Ye.

~~Konstantinov~~, I. M., Cand Tech Sci -- (diss) "Application of
Scintillation^{ation} Spectrometers for the Investigation of Continuous
Spectra of Gamma-Radiation." Mos, 1957. 16 pp. (Min Eng-Fys
Higher Ed USSR, Mos Eng-Phys Inst), 110 copies. Bibliogr at
end of text_{(15 titles).} (KL, 7-58, 110)

- 22 -

SOV/112-59-2-3288

21(3)

Translation from: Referativnyy zhurnal. Elektrotehnika, 1959, Nr 2,
pp 151-152 (USSR)

AUTHOR: Konstantinov, I. Ye.

TITLE: Experimental Data on the Luminescent Method of Gamma-Radiation
Dosimetry (Eksperimental'nyye dannyye po lyuminesstentnomy metodu
dozimetrii gamma-izlucheniya)

PERIODICAL: V sb.: Issled. v obl. dozimetrii ioniziruyushchikh izlucheni. M.,
AS USSR, 1957, pp 98-101

ABSTRACT: Checking the "hardness course" in luminescent crystals of NaI(Tl)
naphthalene (activated by anthracene) and stilbene with respect to gamma-
radiation dose rate is described. The photomultiplier current was compared
with the saturation current of a thimble ionization chamber that had no
"hardness course" within the energy range in question. The following gamma-
radiation sources were used:

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SOV/112-59-2-3288

Experimental Data on the Luminescent Method of Gamma-Radiation Dosimetry

Sn^{113} (350 Kev), Cs^{137} (661 Kev), Co^{60} (1.25 Mev). All investigated crystals
had the "hardness course." The ratio of the photomultiplier current to the
chamber current grows with higher gamma-radiation energy for stilbene and
naphthalene and droops for NaI(Tl). The minimum gamma-radiation dose rate
that can be measured by the luminescent method was determined for a NaI(Tl)
crystal. Feasibility of constructing a luminescent gamma-radiation dosimeter
for measuring a dose rate of 10^{-9} roentgen/sec is noted.

N.G.Z.

Card 2/2

Luminescence two crystal structure

KONSTANTINOV, I.Ye.

Use of scintillation spectrometers for investigating continuous
 γ -ray spectra. Mek.vop.inzh.fiz. no.3:32-64 '58.

(MIRA 12:5)

(Gamma rays--Spectra) (Scintillation spectrometry)

AUTHORS: Kheyker, D.M., Konstantinov, I.Ye. and Alekseyev, V.A. ^{SOV/70-4-1-9/26}

TITLE: The Application of the Scintillation Counter in X-ray Structural Analysis (Primeneniye stsintillyatsionnogo schetchika v rentgenostrukturnom analize)

PERIODICAL: Kristallografiya, 1959, Vol 4, Nr 1, pp 54-61 (USSR)

ABSTRACT: A scintillation counter and recorder with discriminating circuits which is suitable for use with the URS-50I diffractometer is described. The block diagram is given in Figure 1, where:

- 1 - crystal, NaI(Tl), size 20x5x1 mm;
- 2 - photomultiplier FEU-29;
- 3 - cathode follower;
- 4 - H.T. stabilised rectifier, 1500 V supply, ripple content < 0.2%;
- 5 - linear amplifier, rise-time 0.5 μ sec, maximum amplification 4000, resolving time 1-2 μ sec;
- 6, 7 - stabilised amplifier supplies;
- 8 - differential discriminator, resolving time 2.5-3 μ sec, position (0 to 100 V) and width of channel (0-10 V) are continuously variable;

Card1/4

SOV/70-4-1-9/26
The Application of the Scintillation Counter in X-ray Structural Analysis

- 9 - countering circuit;
- 10 - timing relay;
- 11 - countering circuit, PS-64 type counting 1,4,16, 256 and 1024 with resolving time 2.5-3 μ sec;
- 12 - electromechanical counter;
- 13 - integrating circuit with 2 ranges 0 to 100 and 0-200 pulses/sec;
- 14 - recorder;
- 15 - mains.

The installation has the following characteristics.
Linearity: the resolving time of the counter is about 0.25 μ sec and the limiting factor is the resolving time of the recording circuits, which is about 2.5-3.0 μ sec, so that the departure from linearity does not exceed 1% up to 3500 counts/sec. Efficiency: the quantum efficiency of the counter is determined by the thickness of the window, usually the reflected beam passes through black paper and 14 μ Al foil. The absorptions for Mo, Cu and Fe radiation are 2, 20 and 40%, respectively.

Card2/4

SOV/70-4-1-9/26

The Application of the Scintillation Counter in X-ray Structural Analysis

Spectral characteristics: curves are given showing that all usual wavelengths can be employed and that there is good discrimination against noise but that a β -filter should always be used. The counter background is ~ 0.1 counts/sec for Cu radiation. The r.m.s. error in measuring a given line over periods of a day is about 1.5%. In normal use, the efficiency of a Geiger counter may be 30-50% and that of a scintillation counter 80-90%. If there is heavy fluorescence or Compton scattering, the proportional counter will have advantages and a scintillation counter may need a monochromator after the specimen. There are 6 figures and 10 references, 6 of which are Soviet and 4 English.

Card 3/4

SOV/70-4-1-9/26

The Application of the Scintillation Counter in X-ray Structural Analysis-

ASSOCIATIONS: Vniasbesttsement MPSM SSSR
Moskovskiy inzhenerno-fizicheskiy institut
(Moscow Engineering and Physics Institute)

SUBMITTED: November 4, 1957

Card 4/4

KHEYKER, D.M.; KONSTANTINOV, I.Ye.; ALEKSEYEV, V.A.

Use of detectors of X-ray detectors in diffractometry.
Scintillation device for diffractometry. Trudy NIIAsbesttsementa
no.10:3-24 '59. (MIRA 16:8)
(X-ray diffraction examination)

85359

S/120/60/000/005/033/051
E032/E314

21.5200

AUTHORS: Konstantinov, I.Ye. and Strakhova, V.A.

TITLE: Compton Scintillation Gamma-spectrometer with
Increased Efficiency

PERIODICAL: Priory i tekhnika eksperimenta, 1960, No. 5,
pp. 125 - 126

TEXT: The Compton scintillation γ -spectrometer which was first described by Hofstadter and McIntyre (Ref. 1) is convenient in the study of complex γ -ray spectra. The important advantage of this spectrometer is that only a single instrument maximum corresponds to given monochromatic rays (in distinction to a single-crystal γ -spectrometer in which photopeaks are accompanied by considerable Compton distributions, and the interpretation of the results is more difficult). An important disadvantage of the Compton γ -spectrometer is its low relative aperture. For example, in a spectrometer employing collimation and NaI(Tl) crystals of small dimensions (diameter 30 mm, length 13 mm), the relative aperture is $\sim 10^{-7}$ (Ref. 2).

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85359

S/120/60/000/005/033/051

E032/E314

Compton Scintillation Gamma-spectrometer with Increased Efficiency

Various methods of increasing the relative aperture of the Compton spectrometer have been described in the literature. In the spectrometer without collimation, the relative aperture may be increased by two or three orders of magnitude (Ref.3). In Ref. 4 the relative aperture was increased by more than one order of magnitude by adding pulse amplitudes from the analysing and control crystals. In the present work the relative aperture of the Compton spectrometer was increased by using a control crystal in the form of a ring. The block diagram of the instrument is shown in Fig. 1. γ -rays from the source S were collimated by a lead collimator and passed through the hole in the control NaI(Tl) crystal C_2 . They then entered the analysing crystal C_1 (NaI(Tl)) and were Compton-scattered into the control crystal which was in contact with the photo-multipliers PM-II, PM-III and PM-IV (the latter is not shown in the figure). The analysing crystal was also in contact

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S/120/60/000/005/033/051

EO32/E314

Compton Scintillation Gamma-spectrometer with Increased Efficiency

with the photomultiplier C_1 (PM-I). The dimensions of the control crystal were: diameter 80 mm, length 30 mm, hole diameter 18 mm, collimator hole diameter 6 mm. The diameter and length of the analysing crystal were 29 and 13 mm, respectively. Pulses from the photomultipliers of the control crystal were fed into the same amplifier. Other parts of the spectrometer were similar to those described in Ref. 2. The efficiency of the spectrometer as a function of energy was measured, using

Hg^{203} , Cs^{137} , Zn^{65} and Co^{60} γ -ray sources. The efficiency was defined as the ratio of the pulses actually recorded and the number of γ -rays incident on the analysing crystal. Fig. 2 shows the efficiency as a function of energy. It is clear from this figure that the efficiency (and hence the relative aperture also) of the ring-crystal spectrometer is higher by a factor of ten as compared with the spectrometer described in Ref. 2. The experimental values for the

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S/120/60/000/005/033/051
EO32/E314

Compton Scintillation Gamma-spectrometer with Increased Efficiency

efficiency are in good agreement with theoretical data. A study of the instrumental lines for monochromatic γ -rays shows that the contribution due to low-energy continuous distributions accompanying the main Compton peaks is not greater than in the spectrometer described in Ref. 2. The main advantage of the spectrometer described above is the fact that it has a higher relative aperture, without any attendant complications in the circuitry and experimental procedure. The procedure described in Ref. 3, on the other hand, is complicated by the fact that the spectrum has to be measured twice, and it is necessary to use special filters in order to eliminate effects due to cascade γ -rays. The above spectrometer may be used in experiments requiring the collimation of γ -rays. Acknowledgment is made to A.B. Gil'varg for supplying the ring crystal in a special packing.

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85359

S/120/60/000/005/033/051

E032/E314

Compton Scintillation Gamma-spectrometer with Increased Efficiency

There are 2 figures and 4 references: 3 Soviet and 1 English.

SUBMITTED: August 26, 1959

Card 5/5

S/032/60/026/04/38/046
B010/B006

AUTHORS: Alekseyev, V.A., Konstantinov, I.Ye., Kheyker, D.M.

TITLE: Scintillator for the Diffractometer of the Type URS-50I

PERIODICAL: Zavodskaya laboratoriya, 1960, Vol. 26, No. 4, pp. 501-502

TEXT: The present paper was read at the sixth conference on the application of X-rays for testing materials, which was held in Leningrad, from June 23-29, 1958. A scintillator for the diffractometer of the type URS-50I was designed. The block diagram of the apparatus is shown (Fig. 1). The scintillation counter contains a NaJ (Tl)-scintillation crystal (the crystals were prepared by A.B. Gil'varg, a collaborator of the Institut kristallografii AN SSSR (Institute of Crystallography of the AS USSR)) and an FEU-29 photomultiplier. The measuring arrangement comprises a voltage stabilizer of the type SNE-220-0.75, a PS-10000 translator, and a differential discriminator with the integrator, as well as an EPP-09 potentiometer, which is arranged separately. An amplifier stage of the ⁶Zn3P tube is used with the discriminator (Fig. 2, scheme of discriminator). The integrator scheme is similar to that of the measuring apparatus of the type "Bambuk". The scintillator described renders possible the counting of 50, 500,

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Scintillator for the Diffractometer of the
Type URS-50I

S/032/60/026/04/38/046
B010/B006

1000, 5000, 10000 and 50000 impulses per second. Measurements may also be carried out using an electromagnetic counter and a stop watch, or a timing relay with a recording instrument. There are 2 figures and 8 references, 4 of which are Soviet.

ASSOCIATION: Nauchno-issledovatel'skiy institut asbesta, slyudy, asbestotsement-nykh izdeliy i proyektirovaniya stroitel'stva predpriyatiy slyudyanoy promyshlennosti (Scientific Research Institute of Asbestos, Mica, and Asbestos-cement Finished Goods and Planning the Construction of Enterprises of the Mica Industry). Moskovskiy inzhenerno-fizicheskii institut (Moscow Institute of Engineering and Physics)

Card 2/2

45455

S/892/62/000/001/018/022
B102/B186

AUTHORS: Fedorov, G. A., Konstantinov, I. Ye.

TITLE: Determination of the efficiency of a scintillation gamma spectrometer by the modeling method

SOURCE: Moscow. Inzhenerno-fizicheskiy institut. Voprosy dosimetrii i zashchity ot izlucheniya, no. 1, 1962, 121-124

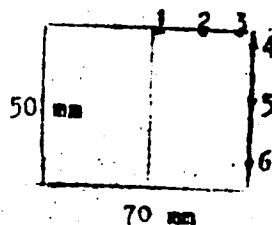
TEXT: The modeling of radioactive sources of arbitrary shape by gamma point sources of known activity is discussed. Measurements were carried out with Hg²⁰³, Cs¹³⁷, Zn⁶⁵, Co⁶⁰ and Na²⁴ sources of less than 1 mm diameter arranged in 2-3 mm wide and 5 mm high cylindrical Dewar vessels, and a 70 x 50 mm large NaI(Tl) counter crystal. The source activities were between 0.3 and 2.5 μ curies, and were determined from the counting rate of a scintillation γ -counter with a NaI(Tl) crystal 39.2 by 37.6 mm. The line shape was determined for the point sources placed at six different positions, not more than 10 mm away from the crystal surface. Line shape and resolution were found to be almost independent of the position; e.g. for Cs¹³⁷ the resolution was

Card 1/2

Determination of the efficiency ...

S/892/62/000/001/018/022
B102/B186

11.3±0.4%. The E_γ -dependence of the photoefficiencies (ϵ) and of the contributions was measured and compared for the source positions. The ϵ -values of the 6 curves coincided at $E_\gamma = 1120$ kev. Knowing $\epsilon(E_\gamma)$, the γ -line intensity was easily calculated from the relation $I(E_\gamma) = S(E_\gamma) / \epsilon(E_\gamma)$, where $S(E_\gamma)$ is the photoppeak area. The accuracy of the method of source modeling by properly arranging point sources depends on the accuracy of the activity measurements and on the number of points. In the experiments described the arrangement was as follows:



There are 2 figures.

Card 2/2

S/796/62/000/003/002/019

AUTHORS: Stolyarova, Ye. L., Chukhin, S. G., Konstantinov, I. Ye., Mis'kevich, A. I.

TITLE: Investigation of the angular-spectrum distributions of scattered γ -radiation in protective barriers in the case of a plane single-directional source.

SOURCE: Moscow. Vyzhenerno-fizicheskiy institut. Priory i metody analiza izlucheniya, no. 3. 1962, 15-36.

TEXT: A theoretical and experimental approach is undertaken to obtain systematic knowledge on the process of transition of γ -rays through protective barriers of finite dimensions and not, as heretofore, through a homogeneous and infinite medium from an isotropic punctuate source or from a plane directional source. The process is characterized in terms of the γ -quanta flux density $N(\vec{r}, \Omega, E)$, customarily termed the angular energy distribution of the radiation. The function N permits a determination of a number of important characteristics of a multiply scattered radiation, such as: (1) The energy-intensity spectrum; (2) the angular intensity distribution; (3) the energy-accumulation (storage) factor. A review is made of existing experimental investigations reported by 5 Western and 2 Soviet group of authors. The present investigation comprises measurements with scintillation-type γ -spectrometers of the angular energy distributions at points lying in the far (downstream)

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Investigation of the angular-spectrum distributions... S/796/62/000/003/002/019

boundary plane of a barrier. Co^{60} sources were used with Al, Fe, and Pb media. Angular intensity distributions of the scattered γ -radiation were obtained, and a comparison was made between the differential γ -ray energy spectra obtained with an Al barrier of a thickness $\mu_0 d = 1$ and 3.8 and those obtained theoretically for an infinite geometry. The desired function N depends on the barrier thickness, the angle θ between the direction of the primary γ quanta and the direction of the scattered γ quanta near the given point, and on the energy E of the scattered γ quanta. The experimental equipment used, consisting of a fixed NaI(Tl) crystal, 70x48 mm, and a rotatable source-and-barrier rig, is described. The spectrometer effectiveness, its resolution, and details of the photoamplifier and the 100-channel pulse-amplitude analyzer ("Raduga") are reported. The barrier dimensions were 75x75 cm. The plane, single-directional Co^{60} source was simulated by a punctuate source located at a fairly great distance (to obtain nearly uniform radiation intensity on the barrier). Experimental results and data-processing methods. The amplitude distribution of the impulses was measured for a finite number of scattering angles. Corrections were introduced to obtain a true γ -ray spectrum: 1. The "dead" time of the spectrometer, which was a specific defect of the 100-channel amplifier employed, in which the "dead" time was a function of the amplitude of the input impulse. 2. The background, obtained by subtracting the impulse spectrum found by closing the detector collimator with a lead rod from the impulse spectrum

Card 2/4

Investigation of the angular-spectrum distributions... S/796/62/000/003/002/019

measured with the collimator open. 3. The true γ -quantum spectrum as obtained from the measured impulse-amplitude distribution. The solution of the integral equation involved in this problem has been accomplished variously (Lidén, K., et al., Arkiv för Fys., no. 7, 1954, 5; Whyte, G.N., NBS Report no. 1003, 1952) and is here performed by transforming the integral equation into a system of interrelated linear equations. The method of this analysis of the spectrum, including the determination of the matrix elements required therefor and the construction of the matrix, is explained in detail. 4. The spectrometer-effectiveness correction, including the effectiveness of the spectrometer at the photopeak, i.e., the ratio of the number of impulses at the photopeak by the number of γ -quanta that impinge on the crystal, and the correction for the effective solid angle of the collimator. 5. The energy-resolution correction. The results of the measurements are set forth. It was found that all angular energy distributions of the scattered γ -radiation, regardless of the atomic number Z and the angle θ , have a maximum that corresponds to the energy of single scatter over a minimal angle. The shape of the angular energy distribution indicates that the energy-dissipating role of multiple scatter increases with increasing angle θ and decreasing atomic number Z of the medium. Substantial differences between experimental and theoretical spectra occurred for low energies only; this is attributed to the lack of backscatter with real barrier geometry. In the low-energy range an atomic-number-dependent multiple-scatter

Card 3/4

S/048/62/026/003/008/015
B152/B102

AUTHORS: Kheyker, D. M., Zevin, L. S., Konstantinov, I. Ye., and
Alekseyev, V. A.

TITLE: Application of a proportional counter to x-ray diffraction
studies

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya,
v. 26, no. 3, 1962, 388-394

TEXT: By applying a proportional counter the authors were able to reduce the relative background level in roentgenograms. The counter had beryllium side windows and was filled with a mixture of xenon (300 mm Hg) and isopentane (30 mm Hg). The amplitude resolution ($w = 2.36 \sqrt{1.1/N}$, N is the number of initial ion pairs produced by one quantum) for CuK_α was 13 % and the efficiency for the same line was 72 %. A block diagram of the experimental device is shown in Fig. 5. The amplification factor should be of the order of 10^5 and the noise amplitude should not exceed $1/10$ of the signal amplitude. In order to reduce the background level,

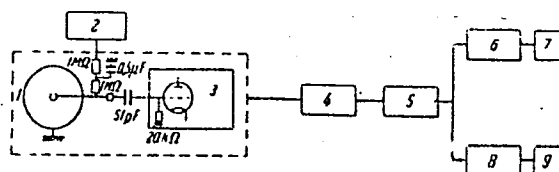
Card 1/3

Application of a proportional...

S/048/62/026/003/008/013
B152/B102

ASSOCIATION: NIIsbesttsement, Moskovskiy inzhenerno-fizicheskiy institut
(Scientific Research Institute of Asbestos and Cement,
Moscow Engineering Physics Institute)

Fig. 5. Block diagram of the experimental device for the proportional counter: (1) proportional counter, (2) high-voltage rectifier "Orekh", (3) preamplifier of "U-2 (USH-2), (4) base amplifier "U-10 (USH-10), (5) differential discriminator AADO-1 (AADO-1), (6) intensimeter KCC (ISS), (7) automatic recorder EPP-09 (EPP-09), (8) scaler, (9) electromechanical counter.



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Fig. 5

ACCESSION NR: AT4021267

S/2892/63/000/002/0162/0170

AUTHOR: Kukushkin, Yu. V., Konstantinov, I. Ye.

TITLE: Investigation of β radiation spectra after passing through matter

SOURCE: Voprosy* dozimetrii i zashchity* ot izlucheniya, no. 2, 1963, 162-170

TOPIC TAGS: β radiation, β spectrum, β particles, scintillation spectrometer, cesium, aluminum, celluloid, Curie-Fermi graph

ABSTRACT: Investigation of β spectra of cesium 137 after passing through an absorber with a low atomic number is conducted. The problem arises in the identification of the content of these elements in thick β preparations by means of the spectrometric method. The β spectra are measured with a scintillation spectrometer, the schematic of which is given. Cesium 137 was the source and the radiation was passed through aluminum foil or celluloid. The obtained β spectra are presented in Curie-Fermi graphs. The authors did not succeed in plotting graphs in the case of great thicknesses of the absorber. The results agree well with the results arrived by Aglintsev, K. K., Kasatkin, V. P. (Atomnaya energiya, 7, Vy*p. 2, 138 (1959)). Orig. art. has: 8 figures.

Card 1/2

ACCESSION NR: AT4021268

S/2892/63/000/002/0171/0178

AUTHOR: Fedorov, G. A., Konstatinov, I. Ye.

TITLE: On the method of determining the cesium 137 content in soils

SOURCE: Voprosy* dozimetrii i zashchity* ot izlucheniya*, no. 2, 1963, 171-178

TOPIC TAGS: cesium 137, γ radiation, radioactive fallout, scintillation spectrometer, photoelectric efficiency

ABSTRACT: In this paper, the authors point out three basic methods for the selection of samples which make it possible to establish the fallout speed and accumulation of radioactive residue: collection of rain water, dust, or snow, by means of open containers, the use of adhesive boards and the selection of soil samples. Soil samples yield the most valuable information on the possible danger of radioactive radiation for man. Certain methodical problems related to the application of a scintillation γ spectrometer for determining the cesium 137 content in soils are examined. In their research involving this method, the authors measured the γ spectra of the samples. For this purpose the crystal NaJ(Te) with $d=70$ mm and $h=55$ mm, and an impulse amplitude analyzer AI-100 were used. The sensitivity of the method is adequate for registering the activity of cesium 137 with high

Card 1/2

GUSEV, N. S.; IVANOVA, Z. M.; KONSTANTINOV, I. Ye.

"The Gamma Spectrometer with Anti-Coincidence Scintillation Shielding."

report submitted for All-Union Conf on Nuclear Spectroscopy, Tbilisi, 14-22
Feb 64.

MIFI (Moscow Engineering Physics Inst)

IVANKOVA, Z. M.; KONSTANTINOV, I. Ye.; OYEDOROV, G. A.

"Scintillation Spectrometer for Fast Neutrons."

report submitted for All-Union Conf on Nuclear Spectroscopy, Tbilisi, 14-22
Feb 64.

MIFI (Moscow Engineering Physics Inst)

L 3143-66 EWT(m)

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BOOK EXPLOITATION UR/

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Ivanov, Viktor Ivanovich; Konstantinov, Igor' YEvgen'yevich; Mashkovich, Vadim Pavlovich 41 B+

Collection of problems on dosimetry¹⁹ and protection from ionized radiation (Sbornik zadach po dozimetrii i zashchite ot ioniziruyushchikh izlucheniye) Moscow, Atomizdat, 1964. 134 p. illus., biblio. 4500 copies printed.

TOPIC TAGS: radiation dosimetry, ionizing radiation, nuclear radiation, radiation protection, radioisotope, radiation hazard

PURPOSE AND COVERAGE: This collection of problems is intended for students and others concerned with radioisotopes, dosimetry, and protection against nuclear radiation. The textbook contains about 400 fundamental problems and their answers on dosimetry and radiation protection, together with the fundamental formulas and relationships needed for the solution of these problems. Some complex auxiliary problems are also included. Course materials, used over a period of years in the Moscow Physics and Engineering In-

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stitute, have been availed of in the compilation of this book. No personalities are mentioned.

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ACCESSION NR: AT5023152

UR/2892/65/000/004/0078/0082

AUTHOR: Gusev, N. S. ; Ivanova, Z. M. ; Konstantinov, I. Ye.

TITLE: Anticoincidence gamma spectrometer with shielded scintillator

SOURCE: Moscow. Inzhenerno-fizicheskiy institut. Voprosy dozimetrii i zashchity ot izlucheniya, no. 4, 1965, 78-82

TOPIC TAGS: gamma spectrometer, scintillation spectrometer, shielding, gamma ray, cesium, zinc, particle counting

ABSTRACT: The article gives a schematic diagram of a modern gamma spectrometer with shielded scintillator. The crystal analyzer (NaI(Tl) and the photomultiplier are located inside the shielded scintillator. Since the dimensions of the shielded scintillator are usually large (sometimes more than 50 cm), several photomultipliers are generally used to collect light and the amplitudes of their impulses are added. The anticoincidence scheme is governed by a multichannel amplitude analyzer. Impulses from the NaI (Tl) crystal are analyzed only when

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CONDITIONS.

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ACCESSION NR: AT5023152

ASSOCIATION: None

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ENCL: 00

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JP

GAVRUSEVA, Antonina Ivanovna; KONSTANTINOV, Ivan Yur'yevich; SARANTSEV,
Yu.S., red.; VOROB'YEVA, L.V., tekhn. red.

[New types of tank cars]Novye tsisterny. Moskva, Transzheldor-
izdat, 1962. 32 p. (MIRA 16:1)
(Tank cars)

IVANOV, As.; KONSTANTINOV, K.

Effect of certain blocking substances on diuresis. Khirurgiia,
Sofia 13 no.5:505-511 '60.

1. Vissh meditsinski institut, Sofia. Katedra po fiziologiya.
Zav. katedrata: prof. T.Gotsev.
(AUTONOMIC DRUGS pharmacol)
(DIURESIS pharmacol)

MLUCHKOV, Khr.,.; DESPOTOV, B.; KONSTANTINOV, K.

Contact beta therapy with radioactive phosphorus (P^{32}) in some cutaneous chronic diseases. Dermato vener Sofia 2 no.3:112-114 '63.

1. Chlen na Redaktionsnen suvet, "Dermatologia i venerologia" (for Konstantinov).
2. Iz OOD - Burgas (gl.lekar N.Kolev), OKVD - Burgas (gl. lekar K. Konstantinov), Gr. ob. b-tsa - Burgas (gl.lekar P.Ipokdzhian).

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<p>IX</p> <p>The mineral deposits of Bulgaria. K. Konstantinov. <i>Z. prikl. Geol.</i> 65, 87 (1977).—A compilation with maps and literature references. R. D. Bumbachet</p>																																																			
<p>ALM-11A METALLURGICAL LITERATURE CLASSIFICATION</p>																																																			
1ST AND 2ND COLUMNS																										3RD AND 4TH COLUMNS																									
COMMON ELEMENTS																										COMMON ELEMENTS																									

KONSTANTINOV, K.

"New Soviet Theories on Ore Deposits", P. 49, (MINNO DELO, Vol. 9,
No. 4, April 1954, Sofiya, Bulgaria)

SO: Monthly List of East European Accessions (EEAL), LC, Vol. 4,
No. 1, Jan. 1955, Uncl.

KONSTANTINOV, K.

"China's Mining Industry and Metallurgy. Tr. from the Russians",
P. 59, (MINMO DELO, Vol. 9, No. 4, April 1954, Sofia, Bulgaria)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4,
No. 1, Jan. 1955, Uncl.

KONSTANTINOV, K.

Konstantinov, K. Poor copper mines. p. 43. MINNO DELO. Sofiya.
Vol. 9, no. 11, Nov, 1954.

SO: Monthly List of the East European Accession (EEAL) LC. Vol. 4,
no. 10, Oct. 1955. Uncl.

KONSTANTINOV, K.

Limits for the economical supplying of coal from different mines. p. 33.
(Tekhnika, Vol. 5, no. 6, Nov./Dec. 1956, Bulgaria)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, no. 6, June 1957, Uncl.

KONSTANTINOV, K.

"A comparative analysis of the correlation between expenses and production value for certain types of copper deposits."

p. 78 (Minno Delo, Vol. 12, no. 4, 1957, Sofia, Bulgaria)

Monthly Index of East European Accessions (EEAI) LC, Vol. 7, no. 2,
September 1958

KONSTANTINOV, K.

After one year in Mine no.37. Mast.ugl. 9 no.6:11 Je '60.
(MIRA 13:7)

(Moscow Basin~Coal mines and mining)

KONSTANTINOV, K. (Tashkent)

This is your mistake, weather forecasters. Grazhd.av. 18 o.2:19
F '61. (MIRA 14:3)

(Meteorology in aeronautics)

KONSTANTINOV, K.

Urgent task. Sov.shakht. 11 no.1:28 Ja '62. (MIRA 14:12)
(Kuznetsk Basin--Coal preparation plants)

KONSTANTINOV, K.

Operating conditions and parameters in electric-power plants with leveled waters. p. 10. ELEKTRONENERGIYA. Sofiya. Vol. 7, no. 3/4, Mar./Apr. 1956.

SOURCE: East European Accessions List. (EEAL) Library of Congress. Vol. 5, No. 8, August 1956.

KONSTANTINOV, K.

Complete usage of the Batak and Stalin dams. p. 68.

KHIDROTEKHNIKA I MELIORATSII, SOFIA, Bulgaria, Vol. 4, no. 3, 1959

Monthly List of East European Accessions (EEAI) LC, VOL. 6, No. 10, Oct. 1959
UNCL.

KONSTANTINOV, K.

TECHNOLOGY

Periodicals ELEKTROENERGIJA. Vol. 10, no. 1, Jan. 1959

KONSTANTINOV, K. General economic principles for electric-power
plant projects. p. 3.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, No. 5,
May 1959, Unclass.

KONSTANTINOV, K.

"General economic principles for planning electric-power stations, planning electric-power pumping stations."

ELEKTROENERGIJA, Sofia, Bulgaria, Vol. 10, no. 3, Mar. 1959.

Monthly list of East Europe Accessions (EEAI), LC, Vol. 8, No. 6, ^{Sept.} ~~Jun~~ 59,
Unclas

KONSTANTINOV, K. G.

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Jul 49

USSR/Medicine - Pike Perch
Medicine - Marine Organisms

"Data on the Biology of Reproduction in the Pike Perch
(*Lucioperca lucioperca* L.)," K. G. Konstantinov, 21 1/2 pp

"Dok Ak Nauk SSSR" Vol LXVII, No 1

Among other features, great importance is attributed
to a proper substratum (bundles of roots) for the
deposit of roe. This is confirmed by the fact that
fish-breeding industries use such substrata. Sub-
mitted by Acad L. S. Berg 9 May 49.

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